

WHAT IS CLAIMED AS NEW AND DESIRED TO BE SECURED BY LETTERS

PATENT OF THE UNITED STATES IS:

1. A material holding implement comprising:

a material holding member adapted for holding a material, said material holding member being made of a thermoplastic resin,

wherein said thermoplastic resin is deformable to a material holding configuration conformable to a desirable material configuration at a temperature higher than a certain temperature, and fixable in said material holding configuration to form a material holding region adapted to apply holding forces on a circumference of the material in a using temperature range lower than a certain temperature.

2. The material holding implement according to Claim 1, wherein said material holding member comprises a plurality of thermoplastic resin plates, each of said thermoplastic resin plates being radially arranged about said material holding region.

3. The material holding implement according to Claim 2, wherein each of said thermoplastic resin plates has a distal end part facing said material holding region, and wherein each distal end part has a flat plate form.

4. A method of changing a form of a material holding member of a material holding implement, the material holding member being adapted for holding a material and being made of a thermoplastic resin, wherein the thermoplastic resin is deformable to a material holding configuration at a temperature greater than a certain temperature, and fixable to form a material holding region adapted to apply holding forces on a circumference of the material in a using temperature range lower than the certain temperature, said method comprising the steps of:

softening the thermoplastic resin of the material holding member by increasing a

temperature above the certain temperature;

    molding the thermoplastic resin into a flat plate by pinching together upper and lower dies having flat surfaces opposing each other;

    pinching the thermoplastic resin using the upper and lower dies to form a material holding configuration; and

    fixing the thermoplastic resin provided with the material holding configuration by decreasing the temperature below a softening point of the thermoplastic resin.

5. The method according to Claim 4, wherein the upper and lower dies are made using a resin having a softening point higher by at least 10°C than the softening point of the thermoplastic resin of the material holding member.

6. A material holding implement comprising:

    a base; and

    a plurality of plates arranged about a perimeter of a material holding region, said plurality of plates having a first end mounted to said base and a distal end facing said material holding region,

    wherein said plurality of plates are made of a thermoplastic resin, and

    wherein said thermoplastic resin is deformable to a material holding configuration at a temperature greater than a predetermined temperature, and fixable to the material holding configuration at a temperature below the predetermined temperature.

7. The material holding implement according to Claim 6, wherein each of said plurality of plates are radially arranged about said material holding region.

8. The material holding implement according to Claim 7, wherein each distal end part has a flat plate form.

9. A method of changing a form of a plurality of plates of a material holding

implement, the material holding implement including a base, and a plurality of plates arranged about a perimeter of a material holding region, the plurality of plates having a first end mounted to the base and a distal end facing the material holding region, the plurality of plates are made of a thermoplastic resin, and the thermoplastic resin is deformable to a material holding configuration at a temperature greater than a predetermined temperature, and fixable to the material holding configuration at a temperature below the predetermined temperature, said method comprising the steps of:

softening the thermoplastic resin of the plurality of plates by increasing a temperature above the predetermined temperature;

pinching the plurality of plates using a first set of upper and lower dies configured in a material configuration to form the material holding configuration; and

fixing the thermoplastic resin in the material holding configuration by decreasing the temperature below the predetermined temperature.

10. The method according to Claim 9, further comprising the step of molding the plurality of plates into flat plates by pinching together a second set of upper and lower dies having flat surfaces opposing each other, wherein the step of molding the plurality of plates is performed prior to the step of pinching the plurality of plates and after the step of softening the thermoplastic resin of the plurality of plates.

11. The method according to Claim 9, wherein the first set of upper and lower dies are made using a resin having a softening point higher by at least 10°C than the predetermined temperature.

12. The method according to Claim 10, wherein the second set of upper and lower dies are made using a resin having a softening point higher by at least 10°C than the predetermined temperature.